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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/695,028 | 10/24/2000 | Jason Michael Benz | BUR9-2000-0047-US1 | 3674 |

21254 7590 04/02/2003

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| EXAMINER |
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ALANKO, ANITA KAREN

| ART UNIT | PAPER NUMBER |
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1765

16

DATE MAILED: 04/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/695,028 | BENZ, JASON MICHAEL |
| | Examiner | Art Unit |
| | Anita K Alanko | 1765 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 2/21/03, RCE amdt "c".
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-36 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____. |
|--|---|

Drawings

Figures 1A-3B should be designated by a legend such as --Related Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: please provide basis for the terms "wherein said reflective material is isolated from an etching process" in claim 1, last line, "wherein said correlation material is isolated from an etching process" in claim 12, last line, and "wherein said opaque material is isolated from an etching process" in claim 23, last line, are new matter. For example, on page 5, line 18, after "anti-reflective chrome oxide", applicant could insert - -, which isolates the chrome from the etching process. - -

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chapple-Sokol et al (US 5,465,859).

Chapple-Sokol discloses a method of etching a substrate, comprising:

- measuring a reflectance signal from a reflective material 7 deposited on said substrate 8 as the substrate is being etched (Fig. 1f, col.3, lines 24-26);
- correlating the substrate etch rate to the reflectance signal from the reflective material; and
- using the etch relation between the substrate and the reflective material to determine the etch target,
- wherein said reflective material 7 is isolated from an etching process (by mask 9, an oxide, and by chrome's native oxide, Fig. 1b).

As to claim 8, 18 and 29, the reflectance signal does not physically represent the substrate or primary film being etched. The reflective material 7 is metal (chrome), and since Chapple-Sokol does not disclose extra steps to prevent the formation of native oxide, the native metal oxide is expected to inherently be present.

As to claims 34-36, there is an inherent direct correlation between the reflectance of the oxide 9 and the substrate etch rate since Chapple-Sokol determines the endpoint of the process based on when the oxide 9 has cleared.

Response to Arguments

The 35 U.S.C. §112, first paragraph is withdrawn. The specification is objected to as not providing proper antecedent basis for the claims. The claims are also rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chapple-Sokol et al (US 5,465,859).

Examiner notes that the claim limitation “isolated from the etching process” is interpreted as meaning that the material is isolated from the etching process by an overlying mask layer and is not etched in the etching process (since it is isolated from the etching process).

As to the argument that the drawings are not prior art, applicant may label them “Related Art.”

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art shows methods of endpoint detection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita K Alanko whose telephone number is 703-305-7708. The examiner can normally be reached on Monday-Friday, 10:00 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech can be reached on 703-308-3836. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9057 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Anita K. Alanko

Anita K Alanko
Primary Examiner
Art Unit 1765

AKA

March 31, 2003